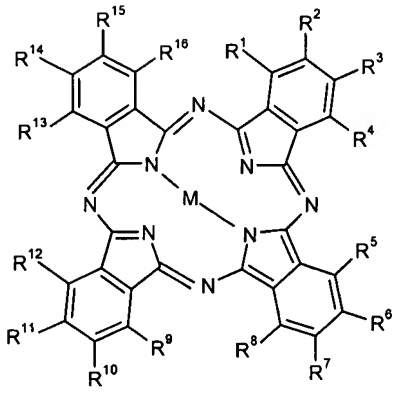
IN THE CLAIMS

1. (currently amended): A phthalocyanine compound of Formula I



wherein at least the eight groups represented by R^1, R^4, R^5, R^8, R^9, R^{12}, R^{13} & R^{16} which groups are identical are –X-J wherein

J is selected from the group consisting of C_{1-6}-alkyl; C_{2-6}-alkenyl; C_{4-8}-cycloalkyl each being optionally substituted by a group selected from the group consisting of C_{1-4}-alkoxy, C_{1-4}-alkylthio, C_{6-12}-aryl, C_{6-12}-arylthio, C_{1-4}-alkylsulphonyl, C_{1-4}-alkylsulphonylamino, C_{1-4}-alkylsulphoxide, amino, mono- and di-C_{1-4}-alkylamino, halogen, nitro, cyano and hydroxycarbonyl (-COOH), hydroxysulphonyl (-SO_3H) or dihydroxyphosphonyl (-PO_3H_2) or C_{1-4}-alkyl esters thereof and from C_{6-12}-aryl optionally substituted by a group selected from the group consisting of C_{1-3}-alkyl, C_{1-3}-alkoxy, C_{1-3}-alkylthio, C_{1-3}-alkylsulphonyl, C_{1-3}-alkylsulphonylamino, C_{1-4}-alkylsulphoxide, amino, mono- and di-C_{1-3}-alkylamino, halogen, nitro, cyano and hydroxycarbonyl, hydroxysulphonyl or dihydroxyphosphonyl, hydroxycarbonyl-C_{1-3}-alkyl, hydroxysulphonyl-C_{1-3}-alkyl, dihydroxyphosphonyl-C_{1-3}-alkyl or C_{1-3}-alkyl esters thereof;

M is an oxymetal group selected from the group consisting of VO, TiO and MoO;

X is S, Se, Te or NT;

T is H, alkyl or phenyl, or T & J, together with the N atom to which they are attached, form an aliphatic or aromatic ring provided this N atom is not positively charged; provided where J is aryl, T is not aryl;

and ~~the remaining groups from R^1 to R^{16} are independently selected from H, halogen, -OJ, hydroxycarbonyl, hydroxysulphonyl, dihydroxyphosphonyl, hydroxycarbonyl-C_{1-3}-alkyl, hydroxysulphonyl-C_{1-3}-alkyl and dihydroxyphosphonyl-C_{1-3}-alkyl, provided that at least one of R^2 and R^3, at least one of R^6 and R^7, at least one of R^{10} and R^{11} and at least one of R^{14} and R^{15} is hydrogen,~~ wherein each of R^2, R^3, R^6, R^7, R^{10}, R^{11}, R^{14} and R^{15} is H with the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc.

2. (canceled)

3. (previously presented): A phthalocyanine compound according Claim 1 wherein the compound has an electronic absorption peak from 750 to 1100 nm.

4. (currently amended): A phthalocyanine compound according to Claim 3 wherein the compound has ~~at least 90% of its~~ an absorption strength in the region above 400nm and at least 90% of said absorption strength is at or above 750 nm.

5. (previously presented): A phthalocyanine compound according to Claim 3 wherein the electronic absorption peak has a band width at half peak height in solution of less than 60 nm.

6. (previously presented): A phthalocyanine compound according to Claim 1 wherein J is selected from the group consisting of C_{3-6}-alkyl, which may be straight or branched chain; C_{2-4}-alkenyl; cyclohexyl; phenyl; naphtha-1-yl or naphtha-2-yl, each of which is optionally substituted.

7. (previously presented): A phthalocyanine compound according to Claim 6 wherein J is an optionally substituted phenyl.

8. (previously presented): A phthalocyanine compound according to Claim 6 wherein the substituent(s) for the phenyl; naphtha-1-yl or naphtha-2-yl groups represented by J is(are) independently selected from the group consisting of C_{1-2}-alkyl; C_{1-2}-alkoxy; C_{1-2}-alkylthio; C_{1-2}-alkylsulphonyl; C_{1-2}-alkylsulphoxide; amino;

mono- and di-C_{1-2}-alkylamino; halogen; nitro; cyano; hydroxycarbonyl, hydroxysulphonyl, dihydroxy-phosphonyl, hydroxycarbonyl-C_{1-3}-alkyl, hydroxysulphonyl-C_{1-3}-alkyl and dihydroxy-phosphonyl-C_{1-3}-alkyl and C_{1-2}-alkyl esters thereof.

9. (previously presented): A phthalocyanine compound according to Claim 6 wherein the optionally substituted phenyl; naphtha-1-yl or naphtha-2-yl groups represented by J are selected from the group consisting of phenyl, 4-methylphenyl, 2-methylphenyl, 4-i-propylphenyl, 2,4-dimethyl-phenyl, 2,5-dimethylphenyl, 3,5-dimethylphenyl, 4-methoxyphenyl, 4-methylthiophenyl, 3-(2-[methoxycarbonyl]ethyl)phenyl, 3-(hydroxycarbonyl)phenyl, 4-(hydroxysulphonyl)-phenyl, 2-chlorophenyl, 4-bromophenyl, 3,5-dichlorophenyl, naphtha-1-yl and naphtha-2-yl.

10. (previously presented): A phthalocyanine compound according to Claim 1 wherein the compound has a formula:

octa-3,6-(RX)-Pc-M Formula III

wherein

M is an oxymetal group selected from the group consisting of VO, TiO and MoO;

Pc is the phthalocyanine nucleus;

X is S, Se, Te or NT wherein T is H, C_{1-4}-alkyl or phenyl; and

R is phenyl or naphthyl each of which is optionally substituted by up to 5 groups selected from the group consisting of C_{1-3}-alkyl, C_{1-3}-alkoxy, C_{1-3}-alkylthio, C_{1-3}-alkylsulphonyl, C_{1-3}-alkylsulphonyl-amino, C_{1-3}-alkylsulphoxide, amino, mono- and di-C_{1-3}-alkylamino, halogen, nitro, cyano and hydroxycarbonyl, hydroxy-sulphonyl, dihydroxyphosphonyl, hydroxycarbonyl-C_{1-3}-alkyl, hydroxysulphonyl-C_{1-3}-alkyl or hydroxyphosphonyl-C_{1-3}-alkyl or C_{1-3}-alkyl esters thereof; or

R & T together form a piperidinyl, piperazinyl, morpholinyl or pyrrolinyl ring.

11. (previously presented): A phthalocyanine compound according to Claim 1 wherein X is sulphur.

12. (currently amended): A phthalocyanine compound according to Claim 1 wherein each of R^1, R^4, R^5, R^8, R^9, R^{12}, R^{13} & R^{16} is 4-methylphenylthio ~~and each of R^2, R^3, R^6, R^7, R^{10}, R^{11}, R^{14} & R^{15} is H~~.

13. (previously presented): A phthalocyanine compound according to Claim 1 wherein M is VO.

Claims 14 – 17 (cancelled)

18. (previously presented): A method for detecting an article carrying a superficial image by scanning with an infra-red detector wherein the image comprises a compound of formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc.

Claims 19 – 21 (cancelled)

22. (original): An ink comprising a compound of formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6(ethylthio) VOPc.

23. (original): An ink according to Claim 22 also comprising a colorant.

24. (previously presented): An ink according to Claim 22 also comprising an alkoxylated or polyalkoxylated acrylate monomer and a photoinitiator.

Claim 25 (cancelled)

26. (original): A method of establishing the authenticity of an article or substrate comprising marking the article or substrate with a mark including a compound according to formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc and detecting and/or measuring a characteristic absorption of infrared radiation by the mark.

27. (previously presented): The phthalocyanine compound according Claim 3 wherein the compound has an electronic absorption peak from 800 to 1000 nm.

28. (currently amended): The phthalocyanine compound according to Claim 4 wherein the compound has ~~at least 95% of its~~ an absorption strength in the region above 400 nm and at least 95% of said absorption strength is at or above 750 nm.